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WATER SKIER SAFETY DEVICE

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This invention relates to a new and improved water skier safety device. More particularly, the invention relates to a warning flag and means for attaching the flag to the head of the water skier so that after a skier has fallen into the water a visible warning flag is displayed above the surface to enable the towing boat more readily to locate the skier.

It will be understood that it is a normal hazard of water skiing for the skier to be disconnected from the towing rope and float or swim in the water. Ordinarily a certain time interval elapses before the towing boat can be turned around, and if visibility is poor, difficulty is sometimes encountered in locating the skier. The present invention provides a highly visible means attached to the head of the skier which projects above the surface of the water when the skier is floating or swimming therein.

A particular feature and advantage of the present invention is the fact that the warning flag may be attached to the head in a convenient manner. Several means of attachment may be employed, such as incorporation as original equipment in a bathing cap or in a head band or, alternatively, means for attaching the warning flag to a conventional bathing cap.

A still further feature of the invention is the fact that all portions of the flag and its staff are flexible and do not constitute a hazard to the skier.

A further feature of the invention is the fact that the flag is preferably preformed in corrugated shape so that it is more readily visible.

Still another feature of the invention is its attractive novelty appearance which makes the wearing of the warning device more readily acceptable to the skier. The corrugated shape of the flag makes it more readily visible when viewed directly fore or aft and further assists in maintaining the flag erect.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings in which similar characters of reference represent corresponding parts in each of the several views.

In the drawings:

FIG. 1 is a perspective view of the flag and means for attachment thereof to a conventional bathing cap.

FIG. 2 is an enlarged fragmentary sectional view of the lower end of the staff of the flag and the attachment means of FIG. 1.

FIG. 3 is a perspective view partly broken away in section of a modified warning flag installed as original equipment on a bathing cap.

FIG. 4 is a perspective view of the device applied to a head band.

FIG. 5 is a fragmentary vertical sectional view of another modified means for attaching the flag to the cap.

FIG. 6 is an enlarged fragmentary plan of the flag.

FIG. 7 is a perspective view of a further modification.

FIG. 8 is a rear view of the device shown in FIG. 7.

FIG. 9 is an enlarged fragmentary view taken substantially along the line 9—9 of FIG. 8.

FIG. 10 is an enlarged fragmentary view taken substantially along the line 10—10 of FIG. 8.

In the form of the invention shown in FIG. 1, there is provided a conventional bathing cap 11 of the type worn by girls and women. Either initially at the factory or subsequent to purchase by the consumer, a hole 12 is cut in the cap at the back of the head. A concave flex-

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ible interior member 13 is installed in the inside of the cap 11, the contour of the member 13 accommodating the head of the user and the shape of the cap 11. Member 13 has an outwardly projected exteriorly threaded nipple 14 projecting through hole 12. Member 13 may be cemented, vulcanized or otherwise adhered to the cap 11 if desired. Any suitable adhesive or cement may be used. Exteriorly of the cap 11 is a locking nut 16 which is in threaded engagement with the nipple 14. Tightening of nut 16 provides a water-tight seal of the member 13 and the cap 11 where cement is not used. Nipple 14 terminates in an upwardly bent stem 17 which is normally vertically disposed and has a tapped hole 18 in its upper end. Above stem 17 is the flexible staff 21 having at its lower end a threaded portion 22 which fits in hole 18 to secure the stem 17 and staff 21 detachably together. At the top of staff 21 is a flag 22 which is preferably preformed in angular corrugations or pleats 23. Corrugations 23 provide a more readily visible surface area when the viewer is directly before or behind the skier. It is desirable that the flag 22 be of a readily visible color such as a daylight fluorescent orange. The staff 21 and flag 22 and, preferably, the stem 17 are of a relatively flexible material so that they constitute no hazard to the skier or others with whom they may come in contact but they are sufficiently rigid so that the flag 22 stands up in the water when the skier is swimming or treading water therein.

It will thus be seen that the invention provides a warning device incorporated in a bathing cap 11 which enables the wearer to be observed from a distance and under poor conditions of visibility even when the wearer is swimming or floating in the water. This permits the towing boat to pick up the skier and also reduces the danger of other boats driving over the skier.

The form of the invention shown in FIG. 3 is similar to that of FIGS. 1 and 2 except that the staff and cap are permanently attached. Corresponding parts are marked with the same reference numeral followed by subscript *a*. Thus the cap 11*a* is provided with an integral boss 26 at the back of the head of the wearer and boss 26 is formed integrally in an upwardly extending staff 27 made of the same material as the cap 11*a*. The flag 22*a* which is attached at the top of the staff 27 is identical with that shown in FIG. 1.

FIG. 4 illustrates a further modification of the invention wherein a head band 31 encircles the head of the wearer. An elastic insert 32 is installed in the band 31 to accommodate different head sizes. At the back of the band 31 is an integral boss 33 similar to boss 26 of FIG. 3 and merging into an upwardly projecting staff 34 carrying a flag 22*b* at its upper end similar to flag 22 and having corrugations 23*b*. The form of the invention shown in FIG. 4 is more suitable to boys and men in that it does not require a bathing cap to be worn. It will be understood that, if desired, a chin strap (not shown) may be used with the head band of FIG. 4 to hold the same in place more securely.

In the modification shown in FIG. 5, there is provided a cap 11*b* having at the rear thereof a boss 26*a* formed with a vertically positioned bore 36. The staff 21*c* for the flag at its lower end is formed with teeth 37 of the general type of a ratchet tooth. The inside diameter of bore 36 is slightly less than the external diameter of the teeth and hence when the flag support is inserted in the bore it is retained therein by reason of the teeth digging into the boss.

In FIG. 7 is shown a further modification. A conventional cap 11*c* is provided with a plurality of two-piece snap members 35 each comprising an internal flange 36 which fits inside the cap and has a fastener stud 37 projecting outward through a small hole cut in the cap.